APPENDIX A

Claim Terms Identified by Capella

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
1.	"port(s)" / "fiber collimators… providing … port(s)" '905 Patent, Claims 1, 15, 16; '906 Patent, Claims 1, 21, 31, 37, 44, 61.	Proposed Construction Fiber collimator port(s) Fiber collimators providing and serving as port(s). Intrinsic Evidence '905 Patent: Abstract; FIGs. 1A, 1B, 1C, 1D, 2A, 2B, 2C, 3, 4A, 4B, 5, 6, and related text; Col. 1:37-41, 1:45-3:62, 3:66-6:37, 6:61-8:21, 8:22-45, 8:45-9:12, 9:13-50, 9:51-10:43, 10:44-67, 11:1-14, 11:15-12:61, 12:62-13:39, 13:40-14:9; all claims. '906 Patent: Abstract; FIGs. 1A, 1B, 1C, 1D, 2A, 2B, 2C, 3, 4A, 4B, 5, 6, and related text; Col. 1:40-44, 1:48-4:4, 4:8-6:48, 7:6-8:33, 8:34-57, 8:57-9:25, 8:57-9:26-64, 9:65-10:56, 10:57-11:13, 11:14-27, 11:28-13:7, 13:8-13:52, 13:53-14:22; all claims. The prosecution histories for the patents-in-suit and predecessor patents, including all IPRs (*e.g.*, IPR2014-01166; IPR2014-01276; IPR2015-00727; IPR2015-00726; IPR2015-00731; IPR2015-00739; IPR2015-00816; IPR2015-00894; IPR2015-01958; IPR2015-01961; IPR2015-01969; IPR2015-01971) and all documents and information contained/cited therein. This includes: • IPR2014-01166, Ex. 1044, Clifford Holliday, Components for R-OADMs '05 (B & C	*See construction of claim term Nos. 2-5.*

		Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2002, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2003, CWavePath 4500 Product Brief, accessed at http://www.capellainc.com/downloads/WavePath%204500%20Product%20Brief%20030206B.pdf • IPR2014-00727, Ex. 2012, U.S. Provisional App. No. 60/277,217 • IPR2014-00727, Ex. 2013, John C. McNulty, *"A perspective on the reliability of MEMS-based components for telecommunications"*, Proc. SPIE 6884, Reliability, Packaging, Testing, and Characterization of MEMS/MOEMS VII, 68840B (February 18, 2008) • IPR2014-00727, Ex. 2014, *Capella Photonics Launches Dynamically Reconfigurable Wavelength Routing Subsystems, Offering Unprecedented Operating Cost Savings and Flexibility for Telecom Service Providers*, Business Wire (June 2, 2003, 8:16 AM), http://www.businesswire.com/news/home /20030602005554/en/Capella-Photonics-Launches-Dynamically-Reconfigurable-Wavelength-Routing • IPR2014-00727, Ex. 2015, Benjamin B. Dingel & Achyut	

		Dutta, *Photonic Add-Drop Multiplexing Perspective for Next Generation Optical Networks*, 4532 SPIE 394 (2001) • IPR2014-00727, Ex. 2015, Tze-Wei Yeow, K. L. Eddie Law, & Andrew Goldenberg, *MEMS Optical Switches*, 39 IEEE Comm. I Mag. no. 11, 158 (2001) • IPR2014-00727, Ex. 2017, Patrick B. Chu et al., *MEMS: the Path to Large Optical Crossconnects*, 40 IEEE Comm. I Mag. no. 3, 80 (2002) • IPR2014-00727, Ex. 2018, Clifford Holliday, *Switching the Lightwave: OXC's – The Centerpiece of All Optical Network* (IGI Consulting Inc. & B & C Consulting Services 2001) • IPR2014-00727, Ex. 2019, An Vu Tran et al., *Reconfigurable Multichannel Optical Add-Drop Multiplexers Incorporating Eight-Port Optical Circulators and Fiber Bragg Gratings*, 13 Photonics Tech. Letters, IEEE, no. 10, 1100 (2001) • IPR2014-00727, Ex. 2020, Jungho Kim & Byoungho Lee, *Bidirectional Wavelength Add-Drop Multiplexer Using Multiport Optical Circulators and Fiber Bragg Gratings*, 12 IEEE Photonics Tech. Letters no. 5, 561 (2000) • IPR2014-00727, Ex. 2021, Max Born & Emil Wolf, Principles of	

		Optics (Pergamon Press, 6th Corrected Ed. 1986) (Excerpts) • IPR2014-00727, Ex. 2023, Abdul Al-Azzawi, Fiber Optics: Principles and Practices (CRC Press 2006) • IPR2014-00727, Ex. 2024, Curriculum Vitae of Dr. Alexander V. Sergienko • IPR2014-00727, Ex. 2025, Ming C. Wu, Olav Solgaard and Joseph E. Ford, "Optical MEMS for Lightwave Communication," Journal of Lightwave Technology, Vol. 24, No. 12, Dec. 2006, pp. 4433-4454 • IPR2014-00727, Ex. 2031, U.S. Patent No. 6,178,284 (Bergmann, et al.) • IPR2014-00727, Petition • IPR2014-00727, Ex. 1002, U.S. Patent No. 6,498,872 (Bouevitch, et al.) • IPR2014-00727, Ex. 1005, U.S. Patent No. 6,442,307 (Carr et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 6,625,340 (Sparks, et al.) • IPR2014-00727, Ex. 1022, U.S. Patent No. 5,414,540 (Patel, et al.) • IPR2014-01166, Paper 19 (including pp. 1-41)	

		• IPR2014-01276, Paper 15 (including pp. 1-14, 32-43) • IPR2015-00726, Paper 22 (including pp. 1-18, 36-43) • IPR2015-00727, Paper 20 (including pp. 1-18, 36-43) • IPR2015-00731, Paper 17 (including pp. 1-13, 31-45) • IPR2015-00739, Paper 16 (including pp. 1-13, 32-46) • IPR2015-00816, Paper 10 (including pp. 1-16, 32-42) • IPR2015-00894, Paper 10 (including pp. 1-15, 32-42) • Federal Circuit Case No. 16-2394, Dkts. 48, 61, 83 • Prosecution History of U.S. Patent No. RE47,905, including: (1) Reissue Declaration, dated June 29, 2018; (2) Preliminary Amendment, dated June 29, 2018; (3) Preliminary Amendment, dated March 25, 2019; (4) Office Action, dated June 26, 2019; (5) Interview Summary, dated July 19, 2019; (6) Amendment and Response, dated July 30, 2019; (7) Office Action, dated September 5, 2019; (8) Interview Summary, dated September 17, 2019; (9) Interview Summary, dated October 16, 2019; (10) Amendment and Reply, dated October 23, 2019; (11) Notice of Allowance, dated November 8, 2019; and (12) Comments on Statement for Reasons for	

		Allowance, dated February 5, 2020. • Prosecution History of U.S. Patent No. RE47,906, including: (1) Reissue Declaration, dated June 29, 2018; (2) Preliminary Amendment, dated June 29, 2018; (3) Preliminary Amendment, dated March 25, 2019; (4) Office Action, dated June 26, 2019; (5) Interview Summary, dated July 19, 2019; (6) Amendment and Response, dated July 30, 2019; (7) Office Action, dated September 5, 2019; (8) Interview Summary, dated September 17, 2019; (9) Interview Summary, dated October 16, 2019; (10) Amendment and Reply, dated October 23, 2019; (11) Notice of Allowance, dated November 8, 2019; and (12) Comments on Statement for Reasons for Allowance, dated February 5, 2020. <u>Extrinsic Evidence</u> Capella refers to the entire prosecution history, including IPRs, and all citations and documents contained therein, but considers that to be intrinsic evidence. Testimony/Declaration from Professor A.Sergienko, including all additional documents and information cited in his December 14, 2020 Declaration, as well as his November 6, 2020 Declaration previously submitted in connection with Eastern District of Texas Case Nos. 2:20-cv-00076-JRG and 2:20-cv-00076-JRG.	

		https://www.merriam-webster.com/dictionary/provide	

Claim Terms Identified by Cisco

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
2.	"port(s)" '368 Patent, Claims 1, 5, 6, 10, 15, 16; '678 Patent, Claims 1-3, 5, 20-22, 24, 31, 37-39, 44-47, 55, 60-63; '905 Patent, Claims 23, 28, 39, 45, 47, 49, 51; '906 Patent, Claims 100, 115, 116-118, 133.	*See* #1 in table above.	"the point of entry or exit of light" *Intrinsic Evidence* *'368 Patent, Claims 1-6, 9-12, 15-22;* *'678 Patent, Claims 1-4, 9, 10, 13, 17, 19-23, 27, 29, 44-46, 53, 61-65;* *'905 Patent, Claims 1, 2–3, 5, 15, 16, 19–20, 23, 27–28, 32, 39–40, 42–43, 45, 47, 49, 51;* *'906 Patent, Claims 1, 5, 8, 11, 13, 21, 24–25, 31, 36–39, 42–44,47–48, 60–61, 68–70, 72, 75, 78, 80, 86–87, 89–90, 92–93, 100–102, 105, 107–109, 112–113, 115–119, 126, 131, 133–137;* *'905 Patent at Abstract, 3:66–4:3, 5:18–53, 5:62–6:34, 6:66–7:10, 7:20–25, 8:22–41, 9:26–31, 9:65-10:24, 10:48–67, 11:25–56, 12:62–13:13, 13:40–14:9, Figs. 4A–4B, Fig 5–6 (and corresponding disclosures from the '906 Patent)* *'906 Patent at Abstract, 6:5–12, 9:40–45;* *U.S. Provisional Patent Application No. 60/277,217 at 2-3, Fig. 9; App. A (p. 8), App. B (p. 12), App. C (p. 16);* *U.S. Patent Application No. 16/023,127, June 29, 2018 Preliminary Amendment in a Reissue Application at 15;* *U.S. Patent Application No. 16/023,127, March 25, 2019 Second Preliminary Amendment at 23;* *U.S. Patent Application No. 16/023,127, June 26, 2019 Patent Reissue Declaration;* *U.S. Patent Application No. 16/023,127,*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			June 26, 2019 Amended Claims Submitted with Patent Reissue Declaration; *U.S. Patent Application No. 16/023,127, June 26, 2019 Office Action at 6;* *U.S. Patent Application No. 16/023,127, July 19, 2019 Applicant Interview Summary at 2-3;* *U.S. Patent Application No. 16/023,127, July 29, 2019 Amendment and Response at 10-15;* *U.S. Patent Application No. 16/023,127, September 5, 2019, Final Rejection 2019 at 5-6;* *U.S. Patent Application No. 16/023,127, October 16, 2019 Examiner-Initiated Interview Summary;* *U.S. Patent Application No. 16/023,127, October 23, 2019 Amendment and Reply;* *U.S. Patent Application No. 16/023,127, November 8, 2019 Notice of Allowance at 4-5;* *U.S. Patent Application No. 16/023,183, June 29, 2018 Preliminary Amendment in a Reissue Application at 22;* *U.S. Patent Application No. 16/023,183, March 25, 2019 Second Preliminary Amendment Patent Appendix at 23;* *U.S. Patent Application No. 16/023,183, June 26, 2019 Office Action at 5, 10-11, 18;* *U.S. Patent Application No. 16/023,127, June 26, 2019 Patent Reissue Declaration;* *U.S. Patent Application No. 16/023,183, June 26, 2019 Amended Claims Submitted with Patent Reissue Declaration;* *U.S. Patent Application No. 16/023,183, September 5, 2019 Office Action at 7;* *U.S. Application No. 16/023,183, July 30,*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			2019 Office Action Response at 29; *U.S. Patent Application No. 16/023,183, September 17, 2019 Applicant-Initiated Interview at 2;* *U.S. Patent Application No. 16/023,183, October 16, 2019 Examiner-Initiated Interview Summary;* *U.S. Patent Application No. 16/023,127, October 23, 2019 Response to Final Rejection;* *IPR2014-01166, Patent Owner's Preliminary Response (Paper 7, November 5, 2014) at 3, 12, 28-41;* *IPR2014-01166, Petitioners Reply (Paper 25, August 4, 2015) at 11-13;* *IPR2014-01166, Deposition of Dr. Alexander Sergienko (Exh. 1039) at 42-45, 53-66;* *IPR2014-01166, Patent Owner Response (Paper 17, May 7, 2015) at 7, 13-14, 49-50, 58;* *IPR2014-01166, Sergienko Declaration (Exh. 2004, May 7, 2015) at ¶¶ 37, 44-48. 146-167;* *IPR2014-01166, Final Written Decision (January 28, 2016) at 12, 14, 22-27;* *IPR2014-01276, Final Written Decision (Paper 50, February 17, 2016) at 13-16, 26-28.* *IPR2015-00726 Sergienko Declaration (December 23, 2015) at ¶ 69;* *IPR2015-00726 Final Written Decision (September 28, 2016) at 12–17;* *IPR2015-00727 Final Written Decision (September 28, 2016) at 14-16;* *IPR2015-00727 Sergienko Declaration (December 23, 2015) at ¶ 69;*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			IPR2015-00731 Final Written Decision (September 29, 2016) at 13-16; *IPR2015-00739 Final Written Decision (October 14, 2016) at 14-17, 25–26;* *IPR2014-01166 Patent Owner's Request for Rehearing (February 29, 2016);* *IPR 2014-01166 Decision Denying Request for Rehearing (February 29, 2016);* *IPR2014-01276 Patent Owner's Request for Rehearing (March 16, 2016);* *IPR2014-01276 Decision Denying Request for Rehearing (July 5, 2016);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Principal Brief for Appellant at 17-35 (February 13, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Appellees' Joint Response Brief at 12-14, 20-47 (May 26, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Reply Brief of Capella Photonics, Inc. at 1-17 (June 23, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Judgment (June 23, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Petition for Rehearing for Appellant (March 15, 2018);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Petition for Rehearing Denied (April 16, 2018);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Supreme Court of the United States, Case No. 18-314, Petition for Writ of*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			Certiorari (September 11, 2018); *Capella Photonics Inc. v. Cisco Systems Inc, et al., Supreme Court of the United States, Case No. 18-314, Petition Denied (November 5, 2018).* *Extrinsic Evidence* *Expert Declaration and Testimony of Dr. Paul Prucnal;* *Communications Standard Dictionary, 2nd Ed. (1989);* *Webster's NewWorld Dictionary, Third College Ed.;* *McGraw-Hill Dictionary of Engineering, 2nd Ed. (2003);* *Photonics Switching, Vol. II Systems, pp. 217–22 (1993);* *Kaname Jinguiji, Synthesis of Coherent Two-Port Optical Delay- Line Circuit with Ring Waveguides, Journal of Lightwave Tech.,Vol. 14, No. 8 (Aug. 1996);* *Webster's NewWorld Dictionary, Third College Ed.*
3.	"fiber collimator port(s)" / "fiber collimator…port(s)" '905 Patent, Claims 23, 27, 32, 39; '906 Patent, Claims 68-70, 72, 80, 87, 89, 90, 92, 100, 115, 118, 126, 131, 133.	*See* #1 in table above.	"fiber collimator port excluding circulator ports that is the point of entry or exit of light" *Intrinsic Evidence* *'905 Patent, Claims 1, 2–3, 5, 15, 16, 19–20, 23, 27–28, 32, 39–40, 42–43, 45, 47, 49, 51;* *'906 Patent, Claims 1, 5, 8, 11, 13, 21, 24–25, 31, 36–39, 42–44, 47–48, 60–61, 68–70, 72, 75, 78, 80, 86–87, 89–90, 92–93, 100–102, 105, 107–109, 112–113, 115–119, 126, 131, 133–137;* *'905 Patent: 9:34-38;* *'906 Patent: 9:48-52;* *U.S. Provisional Patent Application No.*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			60/277,217, App. A (p. 8), App. B (p. 12), App. C (p. 16); *U.S. Provisional Patent Application No. 60/277,217 at 2-3, Fig. 9;* *U.S. Patent Application No. 16/023,127, June 29, 2018 First Preliminary Amendment at 15;* *U.S. Patent Application No. 16/023,127, March 25, 2019 Second Preliminary Amendment at 23;* *U.S. Patent Application No. 16/023,127, June 26, 2019 Patent Reissue Declaration);* *U.S. Patent Application No. 16/023,127, June 26, 2019 Amended Claims Submitted with Patent Reissue Declaration);* *U.S. Patent Application No. 16/023,127, June 26, 2019 Office Action at 6;* *U.S. Patent Application No. 16/023,127, July 19, 2019 Applicant Interview Summary at 2-3;* *U.S. Patent Application No. 16/023,127, July 29, 2019 Amendment and Response at 10-15;* *U.S. Patent Application No. 16/023,127, July 30, 2019 Office Action Response at 13;* *U.S. Patent Application No. 16/023,127, September 5, 2019, Office Action 2019 at 5-6;* *U.S. Patent Application No. 16/023,127, October 16, 2019 Examiner-Initiated Interview Summary;* *U.S. Patent Application No. 16/023,127, October 23, 2019 Amendment and Reply;* *U.S. Patent Application No. 16/023,127, November 8, 2019 Notice of Allowance at 4-5;* *U.S. Patent Application No. 16/023,183, (June 29, 2018 Preliminary Amendment in a*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			Reissue Application at 22; *U.S. Patent Application No. 16/023,183, March 25, 2019 Second Preliminary Amendment Patent Appendix at 23;* *U.S. Patent Application No. 16/023,183, June 26, 2019 Office Action at 10–11 and 18;* *U.S. Patent Application No. 16/023,183, June 26, 2019 Patent Reissue Declaration;* *U.S. Patent Application No. 16/023,183, June 26, 2019 Amended Claims Submitted with Patent Reissue Declaration;* *U.S. Patent Application No. 16/023,183, July 30, 2019 Office Action Response at 29;* *U.S. Patent Application No. 16/023,183, September 5, 2019 Office Action at 7;* *IPR2014-01166, Patent Owner's Preliminary Response (Paper 7, November 5, 2014) at 3, 12, 28-41;* *IPR2014-01166, Petitioners Reply (Paper 25, August 4, 2015) at 11-13;* *IPR2014-01166, Deposition of Dr. Alexander Sergienko (Exh. 1039) at 42-45, 53-66;* *IPR2014-01166, Patent Owner Response (Paper 17, May 7, 2015) at 7, 13-14, 49-50, 58;* *IPR2014-01166, Sergienko Declaration (Exh. 2004, May 7, 2015) at ¶¶ 37, 44-48. 146-167;* *IPR2014-01166, Final Written Decision (January 28, 2016) at 12-14, 22-27;* *IPR2014-01276, Final Written Decision (Paper 50, February 17, 2016) at 13-16, 26-28;* *IPR2015-00726 Sergienko Declaration (December 23, 2015) at ¶ 69;*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			IPR2015-00726 Final Written Decision (September 28, 2016) at 12–17; *IPR2015-00727 Final Written Decision (September 28, 2016) at 14-16;* *IPR2015-00731 Final Written Decision (September 29, 2016) at 13-16;* *IPR2015-00739 Final Written Decision (October 14, 2016) at 25–26;* *IPR2014-01166 Patent Owner's Request for Rehearing (February 29, 2016);* *IPR 2014-01166 Decision Denying Request for Rehearing (February 29, 2016);* *IPR2014-01276 Patent Owner's Request for Rehearing (March 16, 2016);* *IPR2014-01276 Decision Denying Request for Rehearing (July 5, 2016);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Principal Brief for Appellant at 17-35 (February 13, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Appellees' Joint Response Brief at 12-14, 20-47 (May 26, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Reply Brief of Capella Photonics, Inc. at 1-17 (June 23, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Judgment (June 23, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Petition for Rehearing for Appellant (March 15, 2018);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Petition for Rehearing Denied*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			(April 16, 2018); *Capella Photonics Inc. v. Cisco Systems Inc, et al., Supreme Court of the United States, Case No. 18-314, Petition for Writ of Certiorari (September 11, 2018);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Supreme Court of the United States, Case No. 18-314, Petition Denied (November 5, 2018).* *Extrinsic Evidence* *Expert Declaration and Testimony of Dr. Paul Prucnal.*
4.	"fiber collimators, providing…port(s)" '678 Patent, Claims 1, 21, 31, 44, 55.	*See* #1 in table above.	"fiber collimators that can be coupled to other components to make available a point of entry or exit of light" *Intrinsic Evidence* *'678 Patent, Claims 1-4, 9, 10, 13, 17, 19-23, 27, 29, 44-46, 53, 61-65;* *'906 Patent, Claims 1, 5, 8, 11, 13, 21, 24–25, 31, 36–39, 42–44, 47–48, 60–61, 68–70, 72, 75, 78, 80, 86–87, 89–90, 92–93, 100–102, 105, 107–109, 112–113, 115–119, 126, 131, 133–137;* *'905 Patent: 7:1-10; 9:34-38; 10:2-9; 10:48-52; 11:1-6;* *'906 Patent: 7:13-22; 9:48-52; 10:16-24; 10:61-65; 11:14-19;* *U.S. Provisional Patent Application No. 60/277,217, App. A (p. 8), App. B (p. 12), App. C (p. 16);* *U.S. Patent Provisional Application No. 60/277,217 at 2-3, Fig. 9;* *U.S. Patent Application No. 16/023,183, June 28, 2018 First Preliminary Amendment;* *U.S. Patent Application No. 16/023,183, March 25, 2019 Second Preliminary*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			Amendment at 23; *Application No. 16/023,183, June 26, 2019 Patent Reissue Declaration;* *Application No. 16/023,183, June 26, 2019 Amended Claims Submitted with Patent Reissue Declaration;* *U.S. Patent Application No. 16/023,183, June 26, 2019 Non-Final Office Action at 5, 10-11, and 18;* *U.S. Patent Application No. 16/023,183, July 19, 2019 Applicant-Initiated Interview at 2;* *Application No. 16/023,183, July 30, 2019 Office Action Response at 29;* *U.S. Patent Application No. 16/023,183, September 5, 2019 Non-Final Rejection at 5 and 7;* *U.S. Patent Application No. 16/023,183, October 23, 2019 Response to Office Action at 5, 19-26;* *U.S. Patent Application No. 16/023,127, June 29, 2018 Preliminary Amendment in a Reissue Application at 15;* *U.S. Patent Application No. 16/023,127, March 25, 2019 Second Preliminary Amendment Patent Appendix at 23;* *U.S. Patent Application No. 16/023,127, July 29, 2019 Amendment and Response at 10-15;* *U.S. Patent Application No. 16/023,127, June 26, 2019 Office Action at 6;* *U.S. Patent Application No. 16/023,127, June 26, 2019 Amended Claims Submitted with Patent Reissue Declaration;* *U.S. Patent Application No. 16/023,127, September 5, 2019 Office Action at 6;* *U.S. Patent Application No. 16/023,127, October 16, 2019 Examiner-Initiated*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			Interview Summary; *U.S. Patent Application No. 16/023,127, October 23, 2019 Amendment and Reply;* *U.S. Patent Application No. 16/023,127, November 8, 2019 Notice of Allowance at 4-5;* *IPR2014-01276, Petition (Paper 2, August 12, 2014) at 24-25;* *IPR2014-01276, Patent Owner's Response (Paper 15) at 32-35, 38;* *IPR2014-01276, May 18, 2015, Petitioner's Reply (Paper 20) at 8-11;* *IPR2014-01166, Patent Owner's Preliminary Response (Paper 7, November 5, 2014) at 3, 12, 28-41;* *IPR2014-01166, Petitioners Reply (Paper 25, August 4, 2015) at 11-13;* *IPR2014-01166, Deposition of Dr. Alexander Sergienko (Exh. 1039) at 42-45, 53-66;* *IPR2014-01166, Patent Owner Response (Paper 17, May 7, 2015) at 7, 13-14, 49-50, 58;* *IPR2014-01166, Sergienko Declaration (Exh. 2004, May 7, 2015) at ¶¶ 37, 44-48. 146-167;* *IPR2014-01166, Final Written Decision (January 18, 2016) at 12-14, 22-27;* *IPR2014-01276, Final Written Decision (Paper 50, February 17, 2016) at 13-16, 26-28.* *IPR2015-00726 Sergienko Declaration (December 23, 2015) at ¶ 69;* *IPR2015-00726 Final Written Decision (September 28, 2016) at 12–17;* *IPR2015-00727 Final Written Decision (September 28, 2016) at 14-16;*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			IPR2015-00731 Final Written Decision (September 29, 2016) at 13-16; *IPR2015-00739 Final Written Decision (October 14, 2016) at 14-17, 25–26;* *IPR2014-01166 Patent Owner's Request for Rehearing (February 29, 2016);* *IPR 2014-01166 Decision Denying Request for Rehearing (February 29, 2016);* *IPR2014-01276 Patent Owner's Request for Rehearing (March 16, 2016);* *IPR2014-01276 Decision Denying Request for Rehearing (July 5, 2016);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Principal Brief for Appellant at 17-35 (February 13, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Appellees' Joint Response Brief at 12-14, 20-47 (May 26, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Reply Brief of Capella Photonics, Inc. at 1-17 (June 23, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Judgment (June 23, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Petition for Rehearing for Appellant (March 15, 2018);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Petition for Rehearing Denied (April 16, 2018);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Supreme Court of the United States, Case No. 18-314, Petition for Writ of*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			Certiorari (September 11, 2018); *Capella Photonics Inc. v. Cisco Systems Inc, et al., Supreme Court of the United States, Case No. 18-314, Petition Denied (November 5, 2018).* *Extrinsic Evidence* *Expert Declaration and Testimony of Dr. Paul Prucnal;* *The American Heritage College Dictionary, Third Ed. (1997)* *Merriam Webster, definition of "provide"* *Oxford Dictionary, definition of "provide"*
5.	"fiber collimator(s) providing and serving as…port(s)" / "fiber collimator(s) serving as…port(s)" '905 Patent, Claims 23, 47, 49, 51; '906 Patent, Claims 68, 100, 115, 126.	Proposed Construction Capella asserts that "serving as" needs no construction. Plain and ordinary meaning. *See also*, #1 in table above.	"fiber collimators that by themselves provide the point of entry or exit of light without a circulator" *Intrinsic Evidence* *'678 Patent, Claims 1-4, 9, 10, 13, 17, 19-23, 27, 29, 44-46, 53, 61-65;* *'906 Patent, Claims 1, 5, 8, 11, 13, 21, 24–25, 31, 36–39, 42–44, 47–48, 60–61, 68–70, 72, 75, 78, 80, 86–87, 89–90, 92–93, 100–102, 105, 107–109, 112–113, 115–119, 126, 131, 133–137;* *'905 Patent: 7:1-10; 9:34-38; 10:2-9; 10:48-52; 11:1-6;* *'906 Patent: 7:13-22; 9:48-52; 10:16-24; 10:61-65; 11:14-19;* *U.S. Patent Application No. 16/023,127, June 29, 2018 First Preliminary Amendment;* *U.S. Patent Application No. 16/023,127, March 25, 2019 Second Preliminary Amendment;* *Application No. 16/023,127, June 26, 2019 Amended Claims Submitted with Patent Reissue Declaration;* *Application No. 16/023,127, June 26, 2019*

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			Patent Reissue Declaration; *Application No. 16/023,127, June 26, 2019 Office Action at 6;* *U.S. Patent Application No. 16/023,127, July 29, 2019 Amendment and Response at 10-15;* *Application No. 16/023,127, September 5, 2019 Office Action at 6;* *U.S. Patent Application No. 16/023,127, U.S. Patent Application No. 16/023,127, October 16, 2019 Examiner-Initiated Interview Summary;* *U.S. Patent Application No. 16/023,127, October 23, 2019 Amendment and Reply;* *U.S. Patent Application No. 16/023,127, November 8, 2019 Notice of Allowance at 4-5;* *U.S. Patent Application No. 16/023,183, June 29, 2018 First Preliminary Amendment at 22;* *U.S. Patent Application No. 16/023,183, March 25, 2019 Second Preliminary Amendment at 23;* *Application No. 16/023,183, June 26, 2019 Patent Reissue Declaration;* *Application No. 16/023,183, June 26, 2019 Amended Claims Submitted with Patent Reissue Declaration;* *U.S. Patent Application No. 16/023,183, June 26, 2019 Non-Final Office Action at 5;* *U.S. Patent Application No. 16/023,183, July 19, 2019 Applicant-Initiated Interview at 2;* *U.S. Patent Application No. 16/023,183, September 5, 2019 Non-Final Rejection at 5 and 7;* *U.S. Patent Application No. 16/023,183, October 23, 2019 Response to Office Action*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			at 5, 19-26; *IPR2014-01166, Patent Owner's Preliminary Response (Paper 7, November 5, 2014) at 3, 12, 28-41;* *IPR2014-01166, Petitioners Reply (Paper 25, August 4, 2015) at 11-13;* *IPR2014-01166, Deposition of Dr. Alexander Sergienko (Exh. 1039) at 42-45, 53-66;* *IPR2014-01166, Patent Owner Response (Paper 17, May 7, 2015) at 7, 13-14, 49-50, and 58;* *IPR2014-01166, Sergienko Declaration (Exh. 2004, May 7, 2015) at ¶¶ 37, 44-48. 146-167;* *IPR2014-01166, Final Written Decision (January 28, 2016) at 12-14, 22-27;* *IPR2014-01276, Final Written Decision (Paper 50, February 17, 2016) at 13-16, 26-28;* *IPR2015-00726 Final Written Decision (September 28, 2016) at 12-16;* *IPR2015-00726 Sergienko Declaration (December 23, 2015) at ¶ 69;* *IPR2015-00726 Final Written Decision (September 28, 2016) at 12–17; IPR2015-00727 Final Written Decision (September 28, 2016) at 14-16;* *IPR2015-00727 Sergienko Declaration (December 23, 2015) at ¶ 69;* *IPR2015-00731 Final Written Decision (September 29, 2016) at 13-16;* *IPR2015-00739 Final Written Decision (October 14, 2016) at 14-17, 25–26;* *IPR2014-01166 Patent Owner's Request for Rehearing (February 29, 2016);* *IPR 2014-01166 Decision Denying Request*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			for Rehearing (February 29, 2016); *IPR2014-01276 Patent Owner's Request for Rehearing (March 16, 2016);* *IPR2014-01276 Decision Denying Request for Rehearing (July 5, 2016);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Principal Brief for Appellant at 17-35 (February 13, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Appellees' Joint Response Brief at 12-14, 20-47 (May 26, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Reply Brief of Capella Photonics, Inc. at 1-17 (June 23, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Judgment (June 23, 2017);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Petition for Rehearing for Appellant (March 15, 2018);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Fed. Cir. Appeal, Case No. 16-2394, -2395, Petition for Rehearing Denied (April 16, 2018)* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Supreme Court of the United States, Case No. 18-314, Petition for Writ of Certiorari (September 11, 2018);* *Capella Photonics Inc. v. Cisco Systems Inc, et al., Supreme Court of the United States, Case No. 18-314, Petition Denied (November 5, 2018.)* *<u>Extrinsic Evidence</u>* *U.S. Patent No. 5,909,310, 2:41-43, 3:63-*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
			65, FIG. 3; *Expert Declaration and Testimony of Dr. Paul Prucnal.*
6.	"beam-deflecting elements" '905 Patent, Claims 23-25, 27-28, 31, 35, 46, 47, 49, 51-54; '906 Patent, Claims 133-134, 139.	Proposed Construction Capella asserts that this term needs no construction. Plain and ordinary meaning or, if there is disagreement, deflective parts, including but not limited to mirrored or reflective parts, of a beam deflector. Further, Capella specifically disagrees that construction under 35 U.S.C. §112(f)/¶6 is appropriate. Intrinsic Evidence '905 Patent: Abstract; FIGs. 1A, 1B, 2A, 2B, 3, 4A, 4B, and related text; Col. 3:66-4:41, 5:62-6:9, 6:61-7:29, 7:30-8:21, 8:22-9:12, 9:13-34, 9:34-10:43, 11:1-14; all claims. '906 Patent: Abstract; FIGs. 1A, 1B, 2A, 2B, 3, 4A, 4B, and related text; Col. 4:8-50, 6:4-14, 7:6-41, 7:42-8:33, 8:34-9:25, 9:27-48, 9:48-10:56, 11:14-27; all claims. The prosecution histories for the patents-in-suit and predecessor patents, including all IPRs (*e.g.*, IPR2014-01166; IPR2014-01276; IPR2015-00727; IPR2015-00726; IPR2015-00731; IPR2015-00739; IPR2015-00816; IPR2015-00894; IPR2015-01958; IPR2015-01961; IPR2015-01969; IPR2015-01971) and all	Subject to § 112(6) Structure: silicon micromachined mirrors or reflective ribbons (or membranes) Function: deflecting a beam In the alternative, indefinite. *Intrinsic Evidence* *'905 Patent, Claims 23–25, 27, 28, 31, 35, 46, 47, 49, 51–54;* *'906 Patent, Claims 133, 134, 139;* *'905 Patent at Abstract, Figs. 1A–C, 2A–B, 3, 4A–4B, 4:4–26, 4:33–41, 5:63–6:2, 7:17–29, 7:32–36, 8:22–9:12, 9:22–31, 9:57–61, 10:19–22, 10:44–67, 10:63–65, 11:10-14, 11:42–46, 12:6–11 (and corresponding disclosures in the '906 Patent);* *U.S. Provisional Patent Application No. 60/277,217 at 2-7, FIGS. 11-12, 17, 21;* *IPR2014-01166, Patent Owner's Preliminary Response (Paper 7, November 5, 2014) at 6-8;* *IPR2014-01166 Patent Owner Response (May 7, 2015) at 7, 13-14, 49-50, 58;* *IPR-2014-01166, Sergienko Declaration (Exh. 2004, May 7, 2015) ¶¶ 42, 52, 58;* *IPR-2014-01166, Sergienko Depo. (Exh. 1039) at 83-86, 142-144, 163-165, 175-178;* *IPR2014-01166, Final Written Decision (January 18, 2016) at 10, 16, 21, 23-26, 35-38;* *IPR2014-01166, Exhs 1004, 1005, 1010,*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		documents and information contained/cited therein. This includes: • IPR2014-01166, Ex. 1044, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2002, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2003, CWavePath 4500 Product Brief, accessed at http://www.capellainc.com/downloads/WavePath%204500%20Product%20Brief%20030206B.pdf • IPR2014-00727, Ex. 2012, U.S. Provisional App. No. 60/277,217 • IPR2014-00727, Ex. 2013, John C. McNulty, *"A perspective on the reliability of MEMS-based components for telecommunications"*, Proc. SPIE 6884, Reliability, Packaging, Testing, and Characterization of MEMS/MOEMS VII, 68840B (February 18, 2008) • IPR2014-00727, Ex. 2014, *Capella Photonics Launches Dynamically Reconfigurable Wavelength Routing Subsystems, Offering Unprecedented Operating Cost Savings and Flexibility for Telecom Service Providers*, Business Wire (June 2, 2003, 8:16 AM),	*1015, 1017, 1020, 1023;* *IPR2014-01166, Expert Declaration of Dr. Dan Marom (Paper 1028) ¶¶ 36-37;* *IPR2014-01276 Sergienko Declaration (May 18, 2015) at ¶ 58;* *IPR2014-01276 Final Written Decision (February 16, 2016) at 24;* *IPR2015-00726 Sergienko Declaration (December 23, 2015) at ¶ 69;* *IPR2015-00726, Sergienko Depo. (FNC 1040) at 69-71, 84-85, 89-90, 123-124 ,190-195;* *IPR2015-00726 Final Written Decision (September 28, 2016) at 16–17;* *IPR2015-00727 Sergienko Declaration (December 23, 2015) at ¶ 69;* *IPR2015-00739 Final Written Decision (October 14, 2016) at 25–26.* *Extrinsic Evidence* *Rai-Choudhury, MEMS and MOEMS Technology and Applications, SPIE Press, Vol. PM85 (e.g., pgs. 90-115, 301-329);* *U.S. Patent No. 6,498,872 at 6:15–55, 11:47–49, 12:35-40, 14:52-65, Fig. 8, Fig. 9, Fig. 11;* *U.S. Patent No. 8,867,917 at 1:30-48 (and corresponding disclosure in U.S. Patent Application No. 13/532,735 and U.S. Patent Publication No. 2012/0328291);* *Expert Declaration and Testimony of Dr. Paul Prucnal.*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		http://www.businesswire.com/news/home /20030602005554/en/Capella-Photonics-Launches-Dynamically-Reconfigurable-Wavelength-Routing • IPR2014-00727, Ex. 2015, Benjamin B. Dingel & Achyut Dutta, *Photonic Add-Drop Multiplexing Perspective for Next Generation Optical Networks*, 4532 SPIE 394 (2001) • IPR2014-00727, Ex. 2015, Tze-Wei Yeow, K. L. Eddie Law, & Andrew Goldenberg, *MEMS Optical Switches*, 39 IEEE Comm. I Mag. no. 11, 158 (2001) • IPR2014-00727, Ex. 2017, Patrick B. Chu et al., *MEMS: the Path to Large Optical Crossconnects*, 40 IEEE Comm. I Mag. no. 3, 80 (2002) • IPR2014-00727, Ex. 2018, Clifford Holliday, *Switching the Lightwave: OXC's – The Centerpiece of All Optical Network* (IGI Consulting Inc. & B & C Consulting Services 2001) • IPR2014-00727, Ex. 2019, An Vu Tran et al., *Reconfigurable Multichannel Optical Add-Drop Multiplexers Incorporating Eight-Port Optical Circulators and Fiber Bragg Gratings*, 13 Photonics Tech. Letters, IEEE, no. 10, 1100 (2001)	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		• IPR2014-00727, Ex. 2020, Jungho Kim & Byoungho Lee, *Bidirectional Wavelength Add-Drop Multiplexer Using Multiport Optical Circulators and Fiber Bragg Gratings*, 12 IEEE Photonics Tech. Letters no. 5, 561 (2000) • IPR2014-00727, Ex. 2021, Max Born & Emil Wolf, Principles of Optics (Pergamon Press, 6th Corrected Ed. 1986) (Excerpts) • IPR2014-00727, Ex. 2023, Abdul Al-Azzawi, Fiber Optics: Principles and Practices (CRC Press 2006) • IPR2014-00727, Ex. 2024, Curriculum Vitae of Dr. Alexander V. Sergienko • IPR2014-00727, Ex. 2025, Ming C. Wu, Olav Solgaard and Joseph E. Ford, "Optical MEMS for Lightwave Communication," Journal of Lightwave Technology, Vol. 24, No. 12, Dec. 2006, pp. 4433-4454 • IPR2014-00727, Ex. 2031, U.S. Patent No. 6,178,284 (Bergmann, et al.) • IPR2014-00727, Petition • IPR2014-00727, Ex. 1002, U.S. Patent No. 6,498,872 (Bouevitch, et al.)	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		• IPR2014-00727, Ex. 1005, U.S. Patent No. 6,442,307 (Carr et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 6,625,340 (Sparks, et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 5,414,540 (Patel, et al.) • IPR2014-01166, Patent Owner Response (Paper No. 19) (including pp. 7, 31 & 32) Extrinsic Evidence Capella refers to the entire prosecution history, including IPRs, and all citations and documents contained therein, but considers that to be intrinsic evidence. Testimony/Declaration from Professor A.Sergienko, including all additional documents and information cited in his December 14, 2020 Declaration, as well as his November 6, 2020 Declaration previously submitted in connection with Eastern District of Texas Case Nos. 2:20-cv-00076-JRG and 2:20-cv-00076-JRG.	
7.	"micromirror(s)" '905 Patent, Claim 46; '906 Patent, Claims 68-70, 79, 82, 85, 89-90, 96, 100, 115-117, 122-123, 125-127, 129;	Proposed Construction Mirrored or reflective surfaces for reflecting light. One of ordinary skill in the art would understand "micromirrors" and "micromachined mirrors" to mean small mirrored or reflective surfaces for reflecting light. A "channel micromirror," in light of the specifications and claims, means a small mirror or reflective surfaces that are	"a single reflective MEMS element that can be physically moved to reflect light at different angles" *Intrinsic Evidence* *'905 Patent, Claims 35, 46;* *'906 Patent, Claims 68-70, 76-78, 79, 89-90, 95, 96, 100-103, 115-117, 121-123, 125-129;* *'905 Patent at Abstract, Figs. 1A–C, 2A–B,*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		positioned to receive one of the spectral channels. Intrinsic Evidence '905 Patent: Abstract; FIGs. 1A, 1B, 2A, 2B, 3, 4A, 4B, and related text; Col. 3:66-4:41, 4:42-56, 5:62-6:9, 6:61-7:29, 7:30-8:21, 8:22-9:12, 9:13-34, 9:34-10:43, 11:1-14; claims (including claims 23, 29, 30, 35 & 46). '906 Patent: Abstract; FIGs. 1A, 1B, 2A, 2B, 3, 4A, 4B, and related text; Col. 4:8-50, 4:51-65, 6:4-19, 7:6-41, 7:42-8:33, 8:34-9:25, 9:27-48, 9:48-10:56, 11:14-27; claims (including claims 68-106 & 115-132). The prosecution histories for the patents-in-suit and predecessor patents, including all IPRs (*e.g.*, IPR2014-01166; IPR2014-01276; IPR2015-00727; IPR2015-00726; IPR2015-00731; IPR2015-00739; IPR2015-00816; IPR2015-00894; IPR2015-01958; IPR2015-01961; IPR2015-01969; IPR2015-01971) and all documents and information contained/cited therein. This includes: • IPR2014-01166, Ex. 1044, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2002, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005)	*3, 4A–4B, 4:4–26, 4:33–41, 5:63–6:2, 7:17–29, 7:32–36, 8:22–9:12, 9:22–31, 9:57–61, 10:19–22, 10:44–67, 10:63–65, 11:10-14, 11:42–46, 12:6–11 (and corresponding disclosures in the '906 Patent);* *U.S. Provisional Patent Application No. 60/277,217, FIGS. 11-12, 17;* *US5835458A; US6204946B1; US6222954B1; US5868480A; US6028689A; US6097859A; US6193376B1; US6343862B1; US6243507B1; US6798992B1; US6501877B1; US6928244B1; US6625340B1; US6253001B1; US7183633B2; WO2002018979; WO2002025358; US6567574B1; US6442307B1; US20020081070; US6600851B2; US6603894B1; US6543286B2; US6549699B2; US6760511B2; US6657770B2; US6842549B2; US7164859B2;* *Ford et al., Wavelength Add-Drop Switching Using Tilting MicroMirrors, Journal of Lightwave Technology, vol. 17, No. 5, May 1999;* *Scobey et al., Thin Film Filter Based Components for Optical Add/Drop, OSA/WDM, 1999;* *IPR2014-01166, Expert Declaration of Dr. Alexander Sergienko (Paper 2004), ¶¶ 55-62;* *IPR2014-01166, Papers 1004, 1005, 1010, 1015, 1017, 1020, 1023;* *IPR2014-01166, Expert Declaration of Dr. Dan Marom (Paper 1028) ¶¶ 36-37.* *Extrinsic Evidence* *Rai-Choudhury, MEMS and MOEMS Technology and Applications, SPIE Press, Vol. PM85 (e.g., pgs. 90-115, 301-329);*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		• IPR2014-00727, Ex. 2003, CWavePath 4500 Product Brief, accessed at http://www.capellainc.com/downloads/WavePath%204500%20Product%20Brief%20030206B.pdf • IPR2014-00727, Ex. 2012, U.S. Provisional App. No. 60/277,217 • IPR2014-00727, Ex. 2013, John C. McNulty, *"A perspective on the reliability of MEMS-based components for telecommunications"*, Proc. SPIE 6884, Reliability, Packaging, Testing, and Characterization of MEMS/MOEMS VII, 68840B (February 18, 2008) • IPR2014-00727, Ex. 2014, *Capella Photonics Launches Dynamically Reconfigurable Wavelength Routing Subsystems, Offering Unprecedented Operating Cost Savings and Flexibility for Telecom Service Providers*, Business Wire (June 2, 2003, 8:16 AM), http://www.businesswire.com/news/home /20030602005554/en/Capella-Photonics-Launches-Dynamically-Reconfigurable-Wavelength-Routing • IPR2014-00727, Ex. 2015, Benjamin B. Dingel & Achyut Dutta, *Photonic Add-Drop Multiplexing Perspective for Next Generation Optical Networks*, 4532 SPIE 394 (2001) • IPR2014-00727, Ex. 2015, Tze-Wei Yeow, K. L. Eddie Law, &	*Expert Declaration and Testimony of Dr. Paul Prucnal.*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		Andrew Goldenberg, *MEMS Optical Switches*, 39 IEEE Comm. I Mag. no. 11, 158 (2001) • IPR2014-00727, Ex. 2017, Patrick B. Chu et al., *MEMS: the Path to Large Optical Crossconnects*, 40 IEEE Comm. I Mag. no. 3, 80 (2002) • IPR2014-00727, Ex. 2018, Clifford Holliday, *Switching the Lightwave: OXC's – The Centerpiece of All Optical Network* (IGI Consulting Inc. & B & C Consulting Services 2001) • IPR2014-00727, Ex. 2019, An Vu Tran et al., *Reconfigurable Multichannel Optical Add-Drop Multiplexers Incorporating Eight-Port Optical Circulators and Fiber Bragg Gratings*, 13 Photonics Tech. Letters, IEEE, no. 10, 1100 (2001) • IPR2014-00727, Ex. 2020, Jungho Kim & Byoungho Lee, *Bidirectional Wavelength Add-Drop Multiplexer Using Multiport Optical Circulators and Fiber Bragg Gratings*, 12 IEEE Photonics Tech. Letters no. 5, 561 (2000) • IPR2014-00727, Ex. 2021, Max Born & Emil Wolf, Principles of Optics (Pergamon Press, 6th Corrected Ed. 1986) (Excerpts) • IPR2014-00727, Ex. 2023, Abdul Al-Azzawi, Fiber Optics:	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		Principles and Practices (CRC Press 2006) • IPR2014-00727, Ex. 2024, Curriculum Vitae of Dr. Alexander V. Sergienko • IPR2014-00727, Ex. 2025, Ming C. Wu, Olav Solgaard and Joseph E. Ford, "Optical MEMS for Lightwave Communication," Journal of Lightwave Technology, Vol. 24, No. 12, Dec. 2006, pp. 4433-4454 • IPR2014-00727, Ex. 2031, U.S. Patent No. 6,178,284 (Bergmann, et al.) • IPR2014-00727, Petition • IPR2014-00727, Ex. 1002, U.S. Patent No. 6,498,872 (Bouevitch, et al.) • IPR2014-00727, Ex. 1005, U.S. Patent No. 6,442,307 (Carr et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 6,625,340 (Sparks, et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 5,414,540 (Patel, et al.) • IPR2014-01166, Patent Owner Response (Paper No. 19) (including pp. 7, 31 & 32)	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		Extrinsic Evidence Capella refers to the entire prosecution history, including IPRs, and all citations and documents contained therein, but considers that to be intrinsic evidence. Testimony/Declaration from Professor A.Sergienko, including all additional documents and information cited in his December 14, 2020 Declaration, as well as his November 6, 2020 Declaration previously submitted in connection with Eastern District of Texas Case Nos. 2:20-cv-00076-JRG and 2:20-cv-00076-JRG.	
8.	"continuously controllable" / "controlling… continuously" / "continuously controlling" '905 Patent, Claims 23, 47, 49, 51, 52; '906 Patent, Claims 68, 100, 115, 133.	Proposed Construction Capella asserts that this term needs no construction. Plain and ordinary meaning or, if there is disagreement, continuously controllable means capable of constant or uninterrupted control. Intrinsic Evidence '905 Patent: Abstract; FIGs. 1A, 1B, 2A, 2B, 3, 4A, 4B, and related text; Col. 1:35-3:62, 3:66-4:41, 5:62-6:9, 6:61-7:29, 8:22-9:12, 9:22-34; claims (including claims 23, 47, 49, 51, 52). '906 Patent: Abstract; FIGs. 1A, 1B, 2A, 2B, 3, 4A, 4B, and related text; Col. 1:38-4:4, 4:8-50, 6:4-19, 7:6-41, 8:34-9:25, 9:36-48; claims (including claims 68, 100, 115, 133). The prosecution histories for the patents-in-suit and predecessor patents, including all IPRs (*e.g.*, IPR2014-	"under analog control such that it can be continuously adjusted, i.e., not in step-wise fashion" *Intrinsic Evidence* *'905 Patent, Claims 23–25, 47, 49, 51, 52;* *'906 Patent, Claims 68, 89, 100, 115, 133;* *'905 Patent: Abstract; 4:11-14; 4:19-26; 4:57-5:12; 5:58-6:5; 7:12-29; 8:22-9:31, 9:40-45, 9:57-62, 10:44–67, 11:15-12:61, Figs. 1B-C; (corresponding citations in the '906 Patent);* *Provisional Application No. 60/277,217 at 2-6;* *U.S. Patent Application No. 10/005,714, 2002-12-05 Claim Amendment, Appendix A;* *U.S. Patent Application No. 16/023,127, September 5, 2019, Final Rejection 2019 at 4;* *U.S. Patent Application No. 16/023,183, June 26, 2019, Rejection at 5;* *IPR2014-01166, Petition (Paper 2) at 12-13;* *IPR2014-01166, Final Written Decision*

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		01166; IPR2014-01276; IPR2015-00727; IPR2015-00726; IPR2015-00731; IPR2015-00739; IPR2015-00816; IPR2015-00894; IPR2015-01958; IPR2015-01961; IPR2015-01969; IPR2015-01971) and all documents and information contained/cited therein. This includes: • IPR2014-01166, Ex. 1044, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2002, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2003, CWavePath 4500 Product Brief, accessed at http://www.capellainc.com/downloads/WavePath%204500%20Product%20Brief%20030206B.pdf • IPR2014-00727, Ex. 2012, U.S. Provisional App. No. 60/277,217 • IPR2014-00727, Ex. 2013, John C. McNulty, *"A perspective on the reliability of MEMS-based components for telecommunications"*, Proc. SPIE 6884, Reliability, Packaging, Testing, and Characterization of MEMS/MOEMS VII, 68840B (February 18, 2008) • IPR2014-00727, Ex. 2014, *Capella Photonics Launches Dynamically Reconfigurable*	*(Paper 44) at 9-12;* *IPR2014-01276, Petition (Paper 2) at 11-12;* *IPR2014-01276, Petition (Paper 15) at 7-8, 11-14, 31-32, 43-54;* *IPR2014-01276, Final Written Decision (Paper 43) at 12-13;* *IPR2014-01166, Deposition of Dr. Alexander Sergienko (Paper 1039) at 67-70;* *IPR2014-01166, Expert Declaration of Dr. Alexander Sergienko (Paper 2004), ¶¶ 43, 177-179.* *Extrinsic Evidence* *Expert Declaration and Testimony of Dr. Paul Prucnal.*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		Wavelength Routing Subsystems, Offering Unprecedented Operating Cost Savings and Flexibility for Telecom Service Providers, Business Wire (June 2, 2003, 8:16 AM), http://www.businesswire.com/news/home/20030602005554/en/Capella-Photonics-Launches-Dynamically-Reconfigurable-Wavelength-Routing • IPR2014-00727, Ex. 2015, Benjamin B. Dingel & Achyut Dutta, *Photonic Add-Drop Multiplexing Perspective for Next Generation Optical Networks*, 4532 SPIE 394 (2001) • IPR2014-00727, Ex. 2015, Tze-Wei Yeow, K. L. Eddie Law, & Andrew Goldenberg, *MEMS Optical Switches*, 39 IEEE Comm. I Mag. no. 11, 158 (2001) • IPR2014-00727, Ex. 2017, Patrick B. Chu et al., *MEMS: the Path to Large Optical Crossconnects*, 40 IEEE Comm. I Mag. no. 3, 80 (2002) • IPR2014-00727, Ex. 2018, Clifford Holliday, *Switching the Lightwave: OXC's – The Centerpiece of All Optical Network* (IGI Consulting Inc. & B & C Consulting Services 2001) • IPR2014-00727, Ex. 2019, An Vu Tran et al., *Reconfigurable Multichannel Optical Add-Drop Multiplexers Incorporating*	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		Eight-Port Optical Circulators and Fiber Bragg Gratings, 13 Photonics Tech. Letters, IEEE, no. 10, 1100 (2001) • IPR2014-00727, Ex. 2020, Jungho Kim & Byoungho Lee, *Bidirectional Wavelength Add-Drop Multiplexer Using Multiport Optical Circulators and Fiber Bragg Gratings*, 12 IEEE Photonics Tech. Letters no. 5, 561 (2000) • IPR2014-00727, Ex. 2021, Max Born & Emil Wolf, Principles of Optics (Pergamon Press, 6th Corrected Ed. 1986) (Excerpts) • IPR2014-00727, Ex. 2023, Abdul Al-Azzawi, Fiber Optics: Principles and Practices (CRC Press 2006) • IPR2014-00727, Ex. 2024, Curriculum Vitae of Dr. Alexander V. Sergienko • IPR2014-00727, Ex. 2025, Ming C. Wu, Olav Solgaard and Joseph E. Ford, "Optical MEMS for Lightwave Communication," Journal of Lightwave Technology, Vol. 24, No. 12, Dec. 2006, pp. 4433-4454 • IPR2014-00727, Ex. 2031, U.S. Patent No. 6,178,284 (Bergmann, et al.) • IPR2014-00727, Petition	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		• IPR2014-00727, Ex. 1002, U.S. Patent No. 6,498,872 (Bouevitch, et al.) • IPR2014-00727, Ex. 1005, U.S. Patent No. 6,442,307 (Carr et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 6,625,340 (Sparks, et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 5,414,540 (Patel, et al.) • IPR2014-01166, Patent Owner Response (Paper No. 19) (including pp. 7, 31 & 32) <u>Extrinsic Evidence</u> Capella refers to the entire prosecution history, including IPRs, and all citations and documents contained therein, but considers that to be intrinsic evidence. Testimony/Declaration from Professor A.Sergienko, including all additional documents and information cited in his December 14, 2020 Declaration, as well as his November 6, 2020 Declaration previously submitted in connection with Eastern District of Texas Case Nos. 2:20-cv-00076-JRG and 2:20-cv-00076-JRG. https://www.merriam-webster.com/dictionary/continuous Google Search Definition: https://www.google.com/search?q=continuous&rlz=1C1GCEB_enUS890US890&oq=continuous&aqs=chrome.0.69i59l	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		2j0l4j69i60l2.2943j0j4&sourceid=chrome&ie=UTF-8 U.S. Patent No. 5,946,116 https://www.mouser.com/datasheet/2/391/HV254-35296.pdf	
9.	"controllable in two dimensions"/ "controlling…in two dimensions" '905 Patent, Claims 23, 47, 49, 51; '906 Patent, Claim 133.	Proposed Construction Capella asserts that this term needs no construction. Plain and ordinary meaning or, if there is disagreement, dimension means a direction or quality. *See above* for controllable. Intrinsic Evidence '905 Patent: Abstract; FIGs. 1A, 1B, 2A, 2B, 3, 4A, 4B, and related text; Col. 3:66-4:41, 5:62-6:9, 6:61-7:29, 7:47-63, 8:22-9:12, 9:22-50, 9:57-10:11, 10:44-67; claims (including claims 23, 36, 47, 49 51, 52). '906 Patent: Abstract; FIGs. 1A, 1B, 2A, 2B, 3, 4A, 4B, and related text; Col. 4:8-50, 6:4-19, 7:6-41, 7:59-8:8, 8:34-9:25, 9:36-64, 10:4-24, 10:57-11:13; claims (including claim 133). The prosecution histories for the patents-in-suit and predecessor patents, including all IPRs (*e.g.*, IPR2014-01166; IPR2014-01276; IPR2015-00727; IPR2015-00726; IPR2015-00731; IPR2015-00739; IPR2015-00816; IPR2015-00894; IPR2015-01958; IPR2015-01961; IPR2015-01969; IPR2015-01971) and all	"capable of being physically moved in two dimensions" *Intrinsic Evidence* *'905 Patent: 4:11-51; 7:20-25; 9:25-31; 10:2-10; 11:6-14, FIG 2B; (same citations in '906);* *U.S. Provisional Patent Application No. 60/277,217, FIGS. 11-12, 17;* *IPR2014-01166, Patent Owner's Preliminary Response (Paper 7) at 15;* *IPR2014-01166, Expert Declaration of Dr. Alexander Sergienko (Paper 2004), ¶¶ 168-172.* *Extrinsic Evidence* *Rai-Choudhury, MEMS and MOEMS Technology and Applications, SPIE Press, Vol. PM85 (e.g., pgs. 90-115, 301-329);* *Expert Declaration and Testimony of Dr. Paul Prucnal.*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		documents and information contained/cited therein. This includes: • IPR2014-01166, Ex. 1044, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2002, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2003, CWavePath 4500 Product Brief, accessed at http://www.capellainc.com/downloads/WavePath%204500%20Product%20Brief%20030206B.pdf • IPR2014-00727, Ex. 2012, U.S. Provisional App. No. 60/277,217 • IPR2014-00727, Ex. 2013, John C. McNulty, *"A perspective on the reliability of MEMS-based components for telecommunications"*, Proc. SPIE 6884, Reliability, Packaging, Testing, and Characterization of MEMS/MOEMS VII, 68840B (February 18, 2008) • IPR2014-00727, Ex. 2014, *Capella Photonics Launches Dynamically Reconfigurable Wavelength Routing Subsystems, Offering Unprecedented Operating Cost Savings and Flexibility for Telecom Service Providers*, Business Wire (June 2, 2003, 8:16 AM), http://www.businesswire.com/news/home /20030602005554/en/Capella-Photonics-Launches-	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		Dynamically-Reconfigurable-Wavelength-Routing • IPR2014-00727, Ex. 2015, Benjamin B. Dingel & Achyut Dutta, *Photonic Add-Drop Multiplexing Perspective for Next Generation Optical Networks*, 4532 SPIE 394 (2001) • IPR2014-00727, Ex. 2015, Tze-Wei Yeow, K. L. Eddie Law, & Andrew Goldenberg, *MEMS Optical Switches*, 39 IEEE Comm. I Mag. no. 11, 158 (2001) • IPR2014-00727, Ex. 2017, Patrick B. Chu et al., *MEMS: the Path to Large Optical Crossconnects*, 40 IEEE Comm. I Mag. no. 3, 80 (2002) • IPR2014-00727, Ex. 2018, Clifford Holliday, *Switching the Lightwave: OXC's – The Centerpiece of All Optical Network* (IGI Consulting Inc. & B & C Consulting Services 2001) • IPR2014-00727, Ex. 2019, An Vu Tran et al., *Reconfigurable Multichannel Optical Add-Drop Multiplexers Incorporating Eight-Port Optical Circulators and Fiber Bragg Gratings*, 13 Photonics Tech. Letters, IEEE, no. 10, 1100 (2001) • IPR2014-00727, Ex. 2020, Jungho Kim & Byoungho Lee, *Bidirectional Wavelength Add-Drop Multiplexer Using Multiport Optical Circulators and Fiber Bragg Gratings*, 12	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		IEEE Photonics Tech. Letters no. 5, 561 (2000) • IPR2014-00727, Ex. 2021, Max Born & Emil Wolf, Principles of Optics (Pergamon Press, 6th Corrected Ed. 1986) (Excerpts) • IPR2014-00727, Ex. 2023, Abdul Al-Azzawi, Fiber Optics: Principles and Practices (CRC Press 2006 • IPR2014-00727, Ex. 2024, Curriculum Vitae of Dr. Alexander V. Sergienko • IPR2014-00727, Ex. 2025, Ming C. Wu, Olav Solgaard and Joseph E. Ford, "Optical MEMS for Lightwave Communication," Journal of Lightwave Technology, Vol. 24, No. 12, Dec. 2006, pp. 4433-4454 • IPR2014-00727, Ex. 2031, U.S. Patent No. 6,178,284 (Bergmann, et al.) • IPR2014-00727, Petition • IPR2014-00727, Ex. 1002, U.S. Patent No. 6,498,872 (Bouevitch, et al.) • IPR2014-00727, Ex. 1005, U.S. Patent No. 6,442,307 (Carr et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 6,625,340 (Sparks, et al.)	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		• IPR2014-00727, Ex. 1006, U.S. Patent No. 5,414,540 (Patel, et al.) • IPR2014-01166, Patent Owner Response (Paper No. 19) (including pp. 7, 31 & 32) Extrinsic Evidence Capella refers to the entire prosecution history, including IPRs, and all citations and documents contained therein, but considers that to be intrinsic evidence. Testimony/Declaration from Professor A.Sergienko, including all additional documents and information cited in his December 14, 2020 Declaration, as well as his November 6, 2020 Declaration previously submitted in connection with Eastern District of Texas Case Nos. 2:20-cv-00076-JRG and 2:20-cv-00076-JRG. https://www.merriam-webster.com/dictionary/dimension	
10.	"being pivotal about two axes" '906 Patent, Claims 68, 115.	Proposed Construction Capella asserts that this term needs no construction. Plain and ordinary meaning or, if there is disagreement, capable of rotation about two axes. Intrinsic Evidence '906 Patent: Abstract; FIGs. 2A, 2B, and related text; Col. 4:8-50, 6:4-19, 7:6-41, 7:59-8:8, 8:34-9:25, 9:36-64,	"capable of being physically moved around two axes" *Intrinsic Evidence* *'905 Patent: 4:11---51; 7:20-25, 9:25-31; 10:2-10; 11:6-14, FIG 2B; (same citations in '906);* *U.S. Provisional Patent Application No. 60/277,217, FIGS. 11-12, 17;* *IPR2014-01166, Expert Declaration of Dr. Alexander Sergienko (Paper 2004), ¶ 183.* *Extrinsic Evidence* *Rai-Choudhury, MEMS and MOEMS Technology and Applications, SPIE Press,*

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		10:4-24, 10:57-11:13; claims (including claims 68, 115). The prosecution histories for the patents-in-suit and predecessor patents, including all IPRs (*e.g.*, IPR2014-01166; IPR2014-01276; IPR2015-00727; IPR2015-00726; IPR2015-00731; IPR2015-00739; IPR2015-00816; IPR2015-00894; IPR2015-01958; IPR2015-01961; IPR2015-01969; IPR2015-01971) and all documents and information contained/cited therein. This includes: • IPR2014-01166, Ex. 1044, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2002, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2003, CWavePath 4500 Product Brief, accessed at http://www.capellainc.com/downloads/WavePath%204500%20Product%20Brief%20030206B.pdf • IPR2014-00727, Ex. 2012, U.S. Provisional App. No. 60/277,217 • IPR2014-00727, Ex. 2013, John C. McNulty, *"A perspective on the reliability of MEMS-based components for telecommunications"*, Proc. SPIE 6884, Reliability, Packaging, Testing, and Characterization of	*Vol. PM85 (e.g., pgs. 90-115, 301-329);* *Expert Declaration and Testimony of Dr. Paul Prucnal.*

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		MEMS/MOEMS VII, 68840B (February 18, 2008) • IPR2014-00727, Ex. 2014, *Capella Photonics Launches Dynamically Reconfigurable Wavelength Routing Subsystems, Offering Unprecedented Operating Cost Savings and Flexibility for Telecom Service Providers*, Business Wire (June 2, 2003, 8:16 AM), http://www.businesswire.com/news/home /20030602005554/en/ Capella-Photonics-Launches-Dynamically-Reconfigurable-Wavelength-Routing • IPR2014-00727, Ex. 2015, Benjamin B. Dingel & Achyut Dutta, *Photonic Add-Drop Multiplexing Perspective for Next Generation Optical Networks*, 4532 SPIE 394 (2001) • IPR2014-00727, Ex. 2015, Tze-Wei Yeow, K. L. Eddie Law, & Andrew Goldenberg, *MEMS Optical Switches*, 39 IEEE Comm. I Mag. no. 11, 158 (2001) • IPR2014-00727, Ex. 2017, Patrick B. Chu et al., *MEMS: the Path to Large Optical Crossconnects*, 40 IEEE Comm. I Mag. no. 3, 80 (2002) • IPR2014-00727, Ex. 2018, Clifford Holliday, *Switching the Lightwave: OXC's – The Centerpiece of All Optical Network* (IGI Consulting Inc. &	

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		B & C Consulting Services 2001) • IPR2014-00727, Ex. 2019, An Vu Tran et al., *Reconfigurable Multichannel Optical Add-Drop Multiplexers Incorporating Eight-Port Optical Circulators and Fiber Bragg Gratings*, 13 Photonics Tech. Letters, IEEE, no. 10, 1100 (2001) • IPR2014-00727, Ex. 2020, Jungho Kim & Byoungho Lee, *Bidirectional Wavelength Add-Drop Multiplexer Using Multiport Optical Circulators and Fiber Bragg Gratings*, 12 IEEE Photonics Tech. Letters no. 5, 561 (2000) • IPR2014-00727, Ex. 2021, Max Born & Emil Wolf, Principles of Optics (Pergamon Press, 6th Corrected Ed. 1986) (Excerpts) • IPR2014-00727, Ex. 2023, Abdul Al-Azzawi, Fiber Optics: Principles and Practices (CRC Press 2006) • IPR2014-00727, Ex. 2024, Curriculum Vitae of Dr. Alexander V. Sergienko • IPR2014-00727, Ex. 2025, Ming C. Wu, Olav Solgaard and Joseph E. Ford, "Optical MEMS for Lightwave Communication," Journal of Lightwave Technology, Vol. 24, No. 12, Dec. 2006, pp. 4433-4454	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
		• IPR2014-00727, Ex. 2031, U.S. Patent No. 6,178,284 (Bergmann, et al.) • IPR2014-00727, Petition • IPR2014-00727, Ex. 1002, U.S. Patent No. 6,498,872 (Bouevitch, et al.) • IPR2014-00727, Ex. 1005, U.S. Patent No. 6,442,307 (Carr et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 6,625,340 (Sparks, et al.) • IPR2014-00727, Ex. 1006, U.S. Patent No. 5,414,540 (Patel, et al.) • IPR2014-01166, Patent Owner Response (Paper No. 19) (including pp. 7, 31 & 32) <u>Extrinsic Evidence</u> Capella refers to the entire prosecution history, including IPRs, and all citations and documents contained therein, but considers that to be intrinsic evidence. Testimony/Declaration from Professor A.Sergienko, including all additional documents and information cited in his December 14, 2020 Declaration, as well as his November 6, 2020 Declaration previously submitted in connection with Eastern District of Texas Case Nos. 2:20-cv-00076-JRG and 2:20-cv-00076-JRG.	

No.	Claim Term	Capella's Proposed Construction and Evidence	Cisco's Proposed Construction and Evidence
11.	"controlling dynamically" / "dynamically… controlling" '905 Patent, Claims 51, 52; '906 Patent, Claim 133.	Proposed Construction Capella asserts that this term needs no construction. Plain and ordinary meaning or, if there is disagreement, controlling in response to change, activity, or progress. Intrinsic Evidence '905 Patent: Abstract; FIGs. 3, 4A, 4B, 5, 6, and related text; Col. 1:35-3:62, 4:57-6:34, 6:49-57, 11:15-14:19; claims (including claims 51, 52). '906 Patent: Abstract; FIGs. 2, 4A, 4B, 5, 6, and related text; Col. 1:38-4:4, 4:66-6:45, 6:61-7:2, 11:28-14:33; claims (including claim 133). The prosecution histories for the patents-in-suit and predecessor patents, including all IPRs (*e.g.*, IPR2014-01166; IPR2014-01276; IPR2015-00727; IPR2015-00726; IPR2015-00731; IPR2015-00739; IPR2015-00816; IPR2015-00894; IPR2015-01958; IPR2015-01961; IPR2015-01969; IPR2015-01971) and all documents and information contained/cited therein. This includes: • IPR2014-01166, Ex. 1044, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005) • IPR2014-00727, Ex. 2002, Clifford Holliday, Components for R-OADMs '05 (B & C Consulting Services & IGI Consulting Inc. 2005)	plain meaning, in contrast to static *Intrinsic Evidence* *'905 Patent: 3:33-36; 4:59-5:5; 5:42-53; 5:64-6:5; 6:10-16; 11:15-22; 11:42-51; 12:6-11; 13:35-39; 13:63-14:3;* *'906 Patent: 5:51-62; 6:6-14; 6:20-26; 11:28-35; 11:54-64; 12:19-24; 13:48-52; 14:9-16;* *IPR2014-01276, Petition (Paper 2) at 55-56; IPR2014-01166, Final Written Decision (Paper 44) at 15-16.* *Extrinsic Evidence* *Expert Declaration and Testimony of Dr. Paul Prucnal.*

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